

SANITARY SURVEY FORM - INVENTORY

PWSID 0400260
Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

RESERVATION **Hopi**

SURVEYOR NAME – **Dan L. Fraser, P.E. & JanDee May of Sleeping Giant Environmental Consultants, LLP**

(SYSTEM REPRESENTATIVE) George Silas, Operator

(OTHER REPRESENTATIVE) Edgar Shupla, Director or Phillip Onsaie, Building Maintenance Supervisor; both of the Hopi Tribe's Facilities/Risk Management Services

SYSTEM ADDRESS

Addressee Phillip Onsaie, Building Maintenance Supervisor

Street P.O. Box 123

City Kykotsmobi State AZ Zip 86039

System Phone (928)734-3261 – POnsaie@hopi.nsn.us Fax (928)734-3266

SYSTEM OWNER

Addressee Edgar Shupla, Director of Facilities/Risk Management Services

Street P.O. Box 123

City Kykotsmobi State AZ Zip 86039

System Phone (928)734-3261 – eshupla@hopi.nsn.us Fax (928)734-3266

LOCATION OF SYSTEM

Nearest City Kykotsmobi Description or Physical Address North side of HWY 264 about 57 miles east of Tuba City (see map and driving instructions on Page 13 of this form).

OPERATOR OF SYSTEM

Paid Position? ☒ Yes ☐ No

Name George Silas

Certified Operator? ☒ Yes ☐ No ☐ Not required

Phone (928)380-3988 cell () - email ()

Number of Employees Full Time 1 Part Time 1

OPERATOR OF SYSTEM

Paid Position? ☒ Yes ☐ No

Name Mitchell Sockwyma

Certified Operator? ☐ Yes ☒ No ☐ Not required

Phone () - cell () - email ()

Number of Employees Full Time 1 Part Time 1

PWS Operators	Certification	Operator #	Cert #	Expiration Date	Certification Authority
George Silas	T-1	2247	3470	6/24/2019	ITCA*
Mitchell Sockwyma	Not certified				

*Inter Tribal Council of Arizona, Inc.

SYSTEM STATUS

☒ **A = Active** ☐ **P = Pending (Add New System)**
☐ **I = Inactive**

SYSTEM CLASS

☐ **C = Community** ☒ **NTNC = Non-Transient Non-Community**
☐ **TNC = Transient Non-Community**

Total Service Connections: Residential / Non-Transient: 2
Transient: 0

Total Active Connections: Residential / Non-Transient: 2
Transient: 0

Service Connections Metered? ☐ Yes ☒ No Percent Metered 0 %
Rates and Rate Structure NA Collection Rate NA %

Resident Population Summer: 0
(Number of permanent residents utilizing PWS daily) Winter: 0
Non-Transient Population Summer: 50
(Number of non-transient persons utilizing PWS daily) Winter: 25
Transient Population Summer: 400
(Number of transient persons served by PWS daily) Winter: 200
Total: 450

OWNER TYPE

- ☐ 1 Federal Government ☐ 4 Local Government Authority, Commission, District, Municipality, City, etc.
☐ 2 Private Subdivision, Investor, Trust, Cooperative, Water Association, etc. ☐ 5 Mixed Public/Private
☐ 3 State Government ☒ 6 Native American

SERVICE AREA CHARACTERISTICS LIST

- ☐ BR Bar ☐ OR Other Residential Area
☐ CA Casino ☐ OT Other Transient Area
☐ CS Convenience Store ☐ PA Recreation Areas
☐ DC Day Care Center ☐ RA Residential Area
☐ DI Dispenser ☒ RE Retail Employees
☐ HS Head Start ☒ RS Restaurant
☐ HA Homeowners Assoc. ☐ RV RV Park
☒ HM Hotel/Motel ☐ SC School
☐ HR Highway Rest Area ☐ SI Sanitary Improvement District
☐ IA Industrial/Agricultural ☐ SK Summer Camp
☐ IC Interstate Carrier ☐ SR Secondary Residences
☐ IN Institution ☐ SS Service Station
☐ MF Medical Facility ☐ SU Subdivision
☐ MH Mobile Home Park ☐ WB Water Bottler
☐ MU Municipality ☐ WH Wholesaler (Sells Water)
☐ OA Other Area
☐ ON Other Non-Transient Area
Service Category Description _____

Comments: An estimated 50 persons are currently employed at the rest/motel in the summer with 25 during the off-season. Responsibilities for this PWS are handled by the Hopi Tribe's Facilities and Risk Management staff. Oversight of the Cultural Center itself is provided by the Hopi Tribal Enterprise Board. The board hires a contractor to manage and operate the Cultural Center businesses. In the absence of the contractor taking any responsibility for the PWS, facilities management staff is beginning to make improvements to the PWS. There appears to be some confusion regarding who is ultimately responsible for the costs of operating and maintaining the PWS.

SANITARY SURVEY FORM – WATER SYSTEM FACILITIES

PWSID 0400260
Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

Total Number of Source Facilities 1

WSF ID	Facility Name	Type Code	Seller PWSID	Status/Date	Flows To
GW001	Well 1	GW		A/1969	TP001
TP001	Chlorination and Arsenic Removal			A/2018	EP001
ST001	Storage Tank 1			A/1970	PF001
PF001	Booster Pumping Facility			A/1970	HP001
HP001	Air/water Interface Hydropneumatic Tank			A/1970	DS001
EP001	Entry Point to PWSID #0400260 distribution system			A/1970	ST001
DS001	PWSID #0400260 Distribution System			A/1970	NA
				/	
				/	
				/	
				/	
				/	
				/	
				/	
				/	
				/	

EMERGENCY POWER

Does the system have emergency power? ☐ Yes ☒ No

If yes, what type: _____

Record of primary power failures: Not uncommon but usually for only a few hours. The facility still gets water at low pressure.

FLUORIDATION:

Type: None

Fluoride supply adequate? ☐ Yes ☐ No Properly stored? ☐ Yes ☐ No

Fluoride setup (description): Model _____ Settings: Stroke _____ Speed _____

For Saturators:

Make-up Water Softened?

☐ Yes ☐ No

Make-up Water Metered?

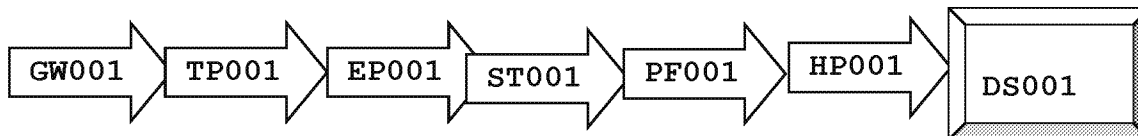
☐ Yes ☐ No

Is there a flow sensor shut-off on the line? ☐ Yes ☐ No

Logs or records kept? ☐ Yes ☐ No Details _____

Flow to Schematic

SGEC believes the entry point sample results would be more reliable if collected post-ST001 because of the potential to bypass treatment with a portion of the water.



SANITARY SURVEY FORM – WELLS & WELL PUMPS

PWSID 0400260
Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

SOURCE INFORMATION

WSF ID GW001 *Entry Point ID EP001*
These are State assigned identification numbers

Source Name Well 1
Name of Source – Example: Well 1 or South well, etc.

Location of Water Source (TRS or street address):
North of the Cultural Center adjacent to ST001

Entry Point Name EP to PWS #0400260 Distribution System
Name of EP – Example: Entry point for North Well 1 & South Well 2

Location of Entry Point At tap on the well's discharge line.

Source Status: ☒ Perm ☐ (I)Inactive ☐ (B)Backup ☐ Emerg ☐
Interim ☐ (A)Abandoned properly ☐ Other
If interim: _____ to _____

WELL LOG AND TEST DATA

Log Available? ☐ Yes ☒ No

Average Production 17,000 GPD
indicate units

Maximum Production 50 GPM
indicate units

Date Drilled July 1969
if well, date drilled

Casing Size 8" steel
size of casing installed in well

Case Depth 1430'
depth of casing installed in well

Well Depth 1,600 FT
depth of well expressed in feet

Grout Depth UNK
depth of grout used to seal well walls

Log SWL 863'
(static) expressed in feet below ground elevation

Log PWL 940'
(pumping) expressed in feet below ground elevation

Test Pump Rate 44 GPM

Intake Type submersible
type of intake mechanism

Screened Interval 12.5' sections of #16 slot SS. Screen and blanks in 20-40 mesh sand pack from 1430-1600'. Pump set at 1,000'
expressed in feet below ground elevation

Well Yield 50 GPM (estimated)
pump tested in gallons per minute

WELLS

	Yes	No	Unk	N/A
Is well site protected from flooding?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is well protected from potential sources of pollution (includes: surface water, known chemical spills, agricultural use, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If no . . . explain _____				
Does casing extend at least				
<input checked="" type="checkbox"/> 18 inches above outside ground level;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> 12 inches above finished floor inside well house; and	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> 3 feet above 100-year flood elevation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<small>(Check for appropriate distance)</small>				
Is top of the well casing properly sealed? (sanitary seal)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is well vented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is well vent properly screened and terminated in a downward position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does well have suitable sampling tap?				
Raw Water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Treated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are check valves, blow-off valves and water meters maintained and operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is upper termination of well protected (housed or fenced)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is intake located below the maximum drawdown?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a concrete pad around well head?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PRODUCTION WELL DATA

Type <u>20-HP Submersible</u> <small>(example: 30 hp line shaft turbine)</small>	
Rated Capacity <u>34 GPM</u>	
Are pumps operable?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
When was pump installed? <u>Around 2001</u>	<input type="checkbox"/> <input type="checkbox"/>
Does the system have appropriate redundancy?	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Is there an appropriate spare parts inventory?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Are controls functioning properly and adequately protected?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Do underground compartments have a drain?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Is facility properly protected against trespassing and vandalism?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Are pump records maintained? Note below if appropriate.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Is the plumbing adequately painted to prevent excessive corrosion?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Are adequate heating, lighting, and ventilation provided?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Is a preventive maintenance program in operation?	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
No cross connections observed?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Comments: (Such as, detailed information on any items with identified deficiencies)

Explain Controls: The well is apparently pumping air and a corroded drop pipe is suspected. Funding is being sought to pull the pump and determine the cause of the air.

Comments: (Such as, detailed information on any items with identified deficiencies)

SANITARY SURVEY FORM - PUMPING FACILITIES (Other than Well Pumps)

PWSID 0400260

Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

WSF ID PF001

These are State assigned identification numbers

Number of Pumps Two 3-HP pumps.

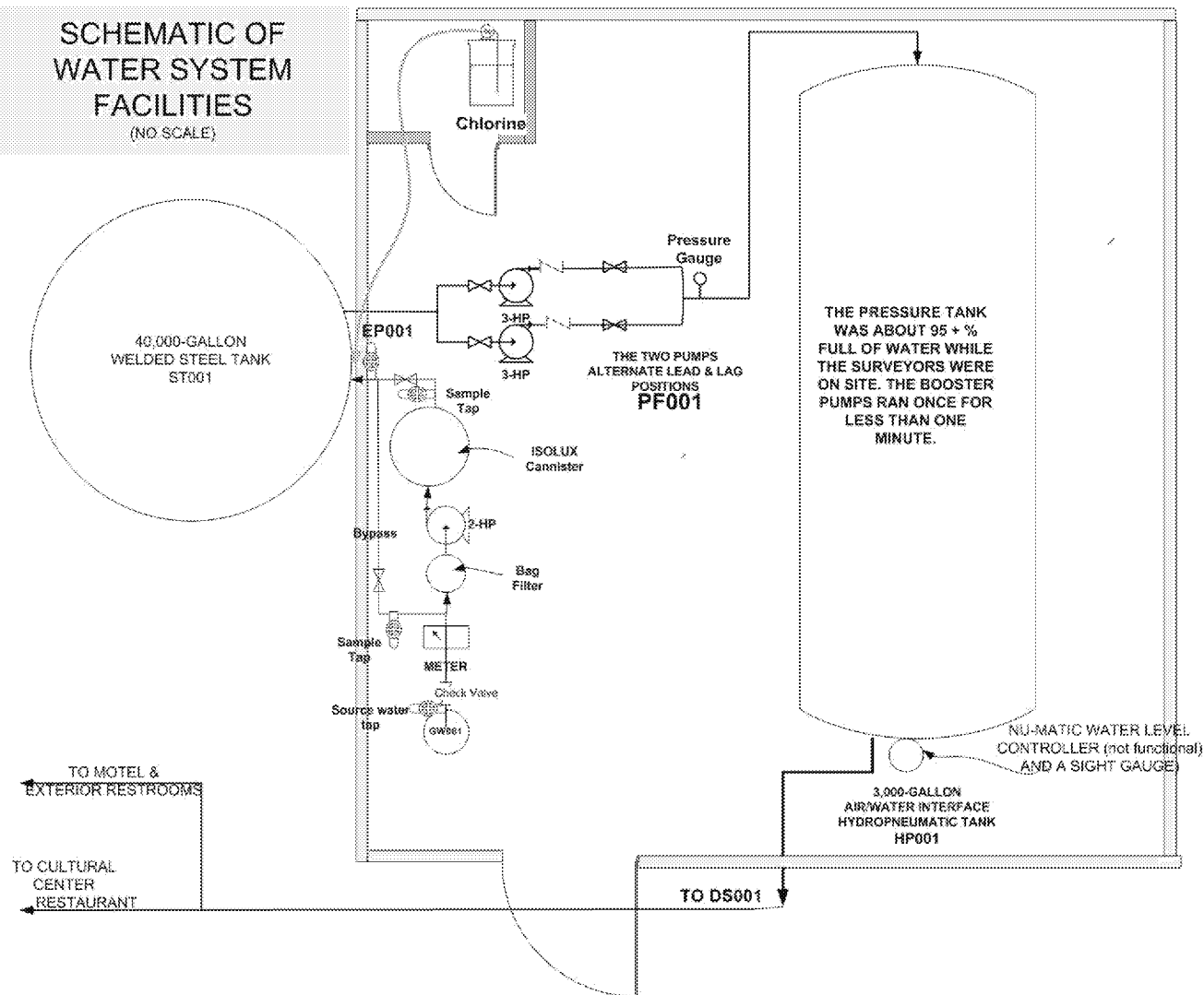
Type: End suction centrifugal

(example: "3 line shaft turbines")

Capacity UNK

Controlled by Pressure switch.

Schematic of Installation:



Are pumps operable?

Yes No Unk N/A

☒ ☐ ☐ ☐

Is redundancy provided?

☒ ☐ ☐ ☐

Protected against trespass/vandalism?

☒ ☐ ☐ ☐

Records maintained?

☒ ☐ ☐ ☐

Property maintained?

☒ ☐ ☐ ☐

Metered?

☒ ☐ ☐ ☐

Cross connections observed?

☐ ☒ ☐ ☐

Is cavitation protection provided?

☐ ☐ ☒ ☐

For booster stations:

Does each pump have standard P-gauge on discharge side and compound P-gauge on the suction side?

☐ ☒ ☐ ☐

If not, do valves and gauges adequately serve for trouble-shooting?

☒ ☐ ☐ ☐

Comments: The pressure tank should be taken out of service and inspected to make sure it does not present a serious safety risk to the operators. The tank is nearly waterlogged.

It should be noted that the chlorine is injected post-arsenic treatment. SGEC recommends injection as early as possible pre-arsenic treatment to oxidize dissolved arsenic in the well water.

SANITARY SURVEY FORM - TREATMENT

PWSID 0400260
Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

Treatment Objective

B = Disinfection Byproduct Control
C = Corrosion Control
D = Disinfection
E = Dechlorination
F = Iron Removal
I = Inorganics Removal
M = Manganese Removal
N = No Treatment at Source
O = Organics Removal
P = Particulate Removal
R = Radionuclides Removal
S = Softening (Hardness Removal)
T = Taste / Odor Control
Z = Other _____

Treatment Codes

(See separate sheet of Treatment Codes)

WATER TREATMENT FACILITIES

WSF ID Treatment Plant Name Treatment Objective and Code

TP001 Chlorination and Arsenic Removal P341 I100 D421

Arsenic adsorption was not in service at the time of the survey.

Treatment Description / Comments: As currently configured, the water is filtered with a bag filter then pumped through a battery of zirconium arsenic adsorptive cartridges followed by disinfection with sodium hypochlorite solution. SGEC recommends pre-chlorination. At the time of the survey, all water was bypassing the arsenic removal system because of problems caused by air in the well water.

FOR SYSTEMS EMPLOYING FULL-TIME DISINFECTION

What disinfectant is used? Sodium hypochlorite Yes No Unk N/A

Is the disinfectant used NSF approved? ☒ ☐ ☐ ☐

Is the amount of disinfectant used recorded? ☒ ☐ ☐ ☐

If Yes, amount used: _____ lbs/day ☒ ppm _____ other (give units)

Is chemical storage adequate and safe? ☒ ☐ ☐ ☐

If No, explain _____

Is disinfectant residual monitored at same time/place as coliform samples are collected? ☒ ☐ ☐ ☐

Are residual reports submitted monthly? ☒ ☐ ☐ ☐

Is the disinfection equipment being operated and maintained properly? ☒ ☐ ☐ ☐

Is operational standby equipment provided? ☒ ☐ ☐ ☐

If not, are critical spare parts on hand? ☒ ☐ ☐ ☐

Has disinfection system been free from failure during the past year – no interruption? ☐ ☐ ☒ ☐

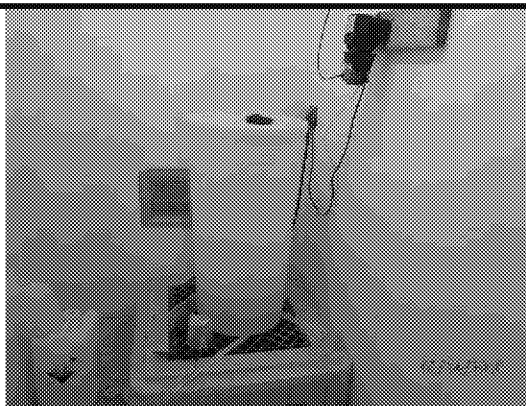
If No, give dates of interruptions _____

CT available Several in ST001 and HP001 minutes _____ mg/L
_____ mg•min/L

Residual ☒ Free ☐ Combined

Describe provisions for providing contact time between disinfection point and the first point of use: Storage tank and hydropneumatic tank.

Measured chlorine residual: 0.38 mg/L Location(s): Hotel – The chlorine solution is diluted to 1.8 percent.



The chlorine solution is injected by a 5.0 GPD Stenner pump.



ISOLUX arsenic removal system.

Comments: SGEC recommends that the chlorine injection point be moved to a point ahead of the arsenic removal system to oxidize the dissolved arsenic.

Treatment Plant	Pump Model	%Stroke/%Speed	Vat Size (gallon)
TP001	85MHP5 – 5 gpd	35	55

SANITARY SURVEY FORM - WATER TREATMENT PLANTS

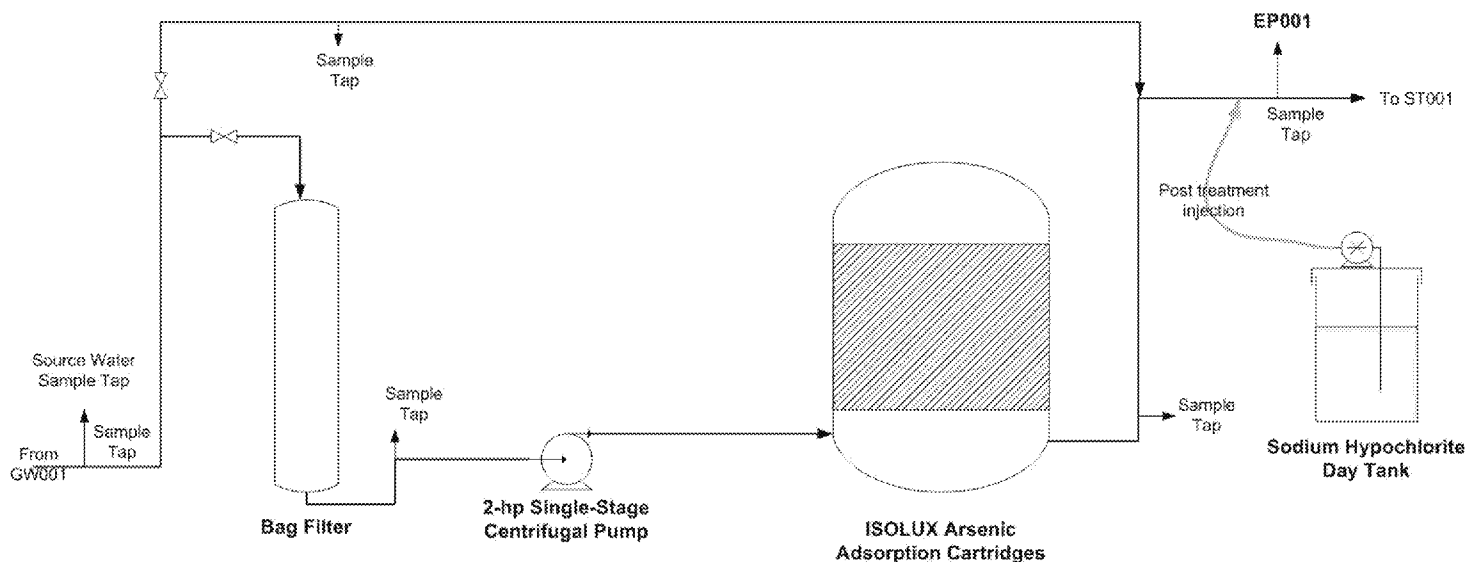
(Direct and Conventional and Others)

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SYSTEM NAME Hopi Cultural Center

Provide a schematic of the treatment plant. Show all chemical application points and sampling locations, both on-line and grab.

Schematic of TP001
(no scale)



As the treatment plant is currently configured, the water is chlorinated after it passes through the bag filter, ISOLUX unit and bypass line. This does not make sense to SGEC as pre-chlorination may be necessary to ensure oxidation of the dissolved arsenic in this deep well. If pre-chlorination is initiated, there will not be very much contact time to ensure oxidation occurs before it passes through the adsorptive media.

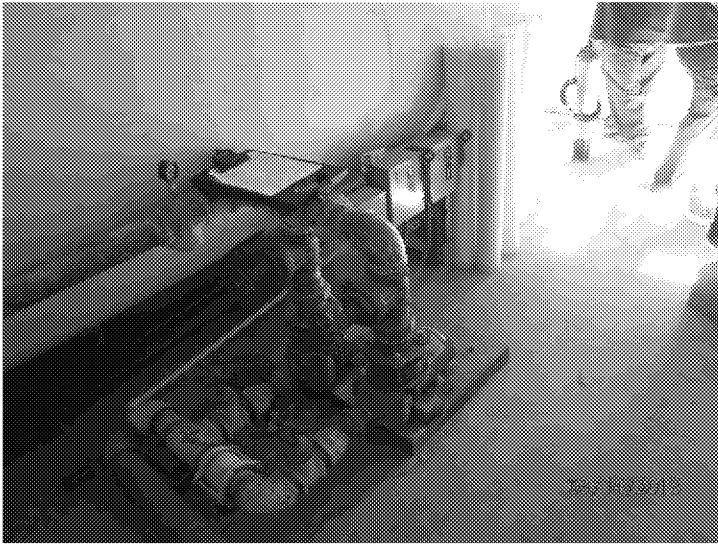
The water is currently bypassing the bag filter and ISOLUX units because of air problems in the well water. Therefore, the PWS is almost certain to be violating the MCL for arsenic (SGEC does not have monitoring reports to support this assumption).

SANITARY SURVEY FORM - PRESSURE CONTROL ASSEMBLIES

PWSID 0400260
Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

PRESSURE TANK(S) (air/water interface)



PF001

WSF ID HP001 Location, Description It is a 1970 vintage welded steel 3,000-gallon hydropneumatic tank. It likely has never been inspected and rehabbed and may be dangerous. At the time of the last sanitary survey, facilities management hoped to replace it with a skid-mounted duplex VFD pumping facility. That hasn't happened due to funding.

Yes No Unk N/A

Is there an operable pressure gauge? ☒ ☐ ☐ ☐

Does low pressure level provide adequate pressure? ☒ ☐ ☐ ☐

Pump run time < 1 minute Cut-In 30 psi Cut-out 50 psi

Time of day Late morning.

Is the tank operating properly (not water logged)? ☒ ☐ ☐ ☐

Is air charge system adequate? ☐ ☒ ☐ ☐

How much air is in the tank? Less than 5% of the volume appeared to be air.

Is the exterior surface of the pressure tank in good physical condition? ☒ ☐ ☐ ☐

Is there a water level sight glass? ☒ ☐ ☐ ☐

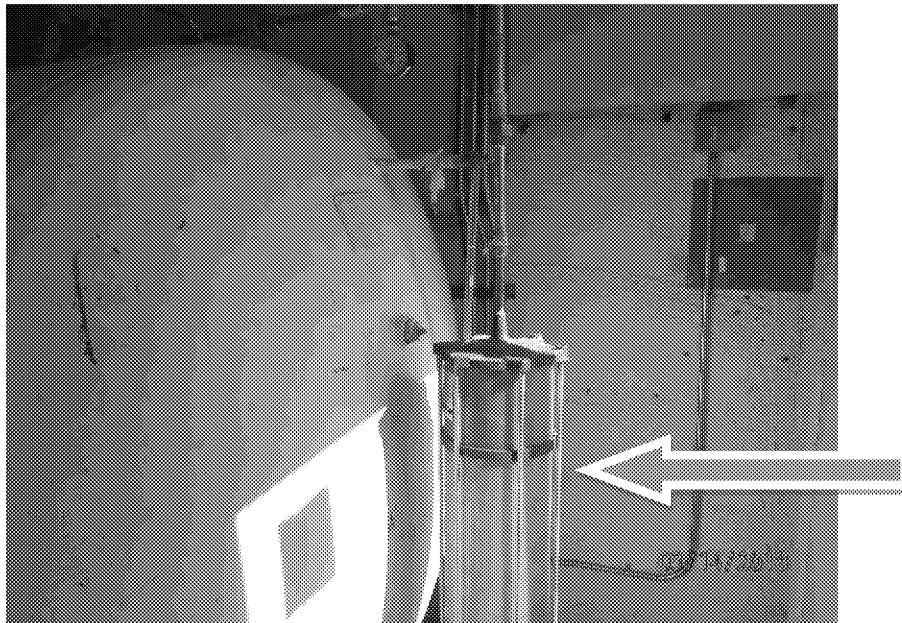
Is there a bottom drain valve? ☒ ☐ ☐ ☐

Is there a pressure relief valve? ☒ ☐ ☐ ☐

Can tank(s) be by-passed for repair? ☐ ☒ ☐ ☐

Pump type: End suction centrifugal (duplex)

Comments: The Nu-Matic controller is not working and air has to be introduced with a compressor.



The Nu-Matic unit is designed to keep the appropriate amount of air in the tank. It is not working so the operator must periodically bring in an air compressor to provide supplementary air. It currently needs air to be added.

SANITARY SURVEY FORM - STORAGE

PWSID 0400260

Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

How much **TOTAL** treated storage is provided? 40,000 gallons Is all treated water covered? ☒ Yes ☐ No

Total number of days of supply? Approximately 3 days

Comments: The tank needs to be rehabbed or replaced. It has had a leak in the recent past.

STORAGE FACILITY

WSF ID ST001 Location, Description Adjacent to pump house north of the Cultural Center

Storage Volume? 40,000 gallons

Dimensions: 13'D X 40'H

Year constructed: 1970

Material: ☐ Bolted steel ☒ Welded steel ☐ Concrete ☐ Other

Yes No Unk N/A

Does surface runoff and underground drainage drain away? ☒ ☐ ☐ ☐

Is the site protected against flooding? ☒ ☐ ☐ ☐

Is the site protected against trespass/vandalism? ☒ ☐ ☐ ☐

Condition: ☐ Good ☐ Fair ☒ Poor

Describe piping (e.g. floats on line): In line.

Foundation: ☐ Slab ☒ Ring ☐ Other

Ladders caged and locked? ☐ ☒ ☐ ☐

Ladder material: Steel

Internal ladder? None per inspection report.

Are overflow lines, air vents, drainage lines or clean out pipes turned downward or covered, screened and terminated a minimum of 3 diameters above the ground or storage tank surface? ☐ ☒ ☐ ☐

Overflow pad? ☐ ☒ ☐ ☐

Erosion? ☐ ☒ ☐ ☐

Working and accurate target? ☐ ☒ ☐ ☐

Sealed and locked shoe-box hatch? ☐ ☒ ☐ ☐

Are surface coatings in contact with water ANSI / NSF approved? ☐ ☒ ☐ ☐

Is tank protected against icing and corrosion? ☐ ☒ ☐ ☐

Can tank be isolated from system? ☐ ☒ ☐ ☐

Is all treated water storage covered? ☒ ☐ ☐ ☐

Is there a formal/written storage tank maintenance program? ☐ ☒ ☐ ☐

What is cleaning frequency for tanks? Last cleaned in 2016. Started leaking after it was cleaned.

Date tank was last cleaned? September 2016.

Are tanks disinfected after repairs are made? ☒ ☐ ☐ ☐

Comments: The tank has no provisions for fall protection. The vent is too small and broken. The hatch has a bolted in place flanged cover making viewing of the interior very difficult.

(Include safety and security concerns)



One-half of the Tee-shaped vent is broken off leaving the interior of the tank vulnerable to dust, insects and small birds.



This is the way the operator has directed the leakage away from the ring foundation. The leak has been repaired but how long the repairs will last is questionable.

SANITARY SURVEY FORM - MISCELLANEOUS

PWSID 0400260

Date of survey: 3/14 & 19/2018

SYSTEM NAME Hopi Cultural Center

DISTRIBUTION SYSTEM EVALUATION

System description 4" GIP to buildings then splits to two 2" GIP service lines.

Feet of mains? Approximately 300'.

Condition of mains? Thought to be good.

Date of installation of mains? Approximately 1970.

AC pipe? ☐ Yes ☒ No _____

System drawings available? ☒ Yes ☐ No ☐ Unk ☐ N/A

As-built drawings? ☒ Yes ☐ No ☐ Unk ☐ N/A

Date Unknown

Drawing on-site? ☐ Yes ☒ No ☐ Unk ☐ N/A

Lines adequately sized? ☒ Yes ☐ No ☐ Unk ☐ N/A

Adequate pressure maintained? ☒ Yes ☐ No ☐ Unk ☐ N/A

Mains protected from freezing? ☒ Yes ☐ No ☐ Unk ☐ N/A

Distribution system free of leaks? ☒ Yes ☐ No ☐ Unk ☐ N/A

Fire hydrants? ☐ Yes ☒ No ☐ Unk ☐ N/A

Dead end lines eliminated? ☐ Yes ☐ No ☐ Unk ☒ N/A

Are dead ends a problem? ☐ Yes ☐ No ☐ Unk ☒ N/A

Flushing program? ☐ Yes ☐ No ☐ Unk ☒ N/A

Describe flushing program: Essentially not much more than service lines that should not normally need flushing.

Distribution system repair procedures?

Is there an SOP for distribution system repairs? ☒ Yes ☐ No ☐ Unk ☐ N/A

Is the repaired line flushed after repairs? ☒ Yes ☐ No ☐ Unk ☐ N/A

Is the repaired line disinfected after repairs? ☒ Yes ☐ No ☐ Unk ☐ N/A

Is the repaired line bacti tested after repairs before returning the line into service? ☐ Yes ☒ No ☐ Unk ☐ N/A

Pressure reducing stations? Number _____ ☐ Yes ☒ No ☐ Unk ☐ N/A

Booster stations? Number 1 ☒ Yes ☐ No ☐ Unk ☐ N/A

Connections to other PWSs? ☐ Yes ☒ No ☐ Unk ☐ N/A

If Yes, please describe: _____

Cross-connection control program? ☐ Yes ☒ No ☐ Unk ☐ N/A

Certified assembly tester? ☐ Yes ☒ No ☐ Unk ☐ N/A

Cross-Connections Observed? ☐ Yes ☒ No

Comments: The operator collects coliform samples after repairs but does not wait for results before restoring service.

SAFETY – ETC.

Is there a formal/written safety program? ☒ Yes ☐ No ☐ Unk ☐ N/A

Is there an eyewash kit or station in the treatment and/or chemical storage areas? ☐ Yes ☒ No ☐ Unk ☐ N/A

Check one: ☐ No confined spaces were observed.
☒ Confined space(s) were observed.

Describe any confined spaces observed Tank

Check one: ☐ No fall risks were observed.
☒ Fall risks were observed.

Describe any fall risks observed Tank

Observed electrical problems? ☐ Yes ☒ No

Note any other safety deficiencies (consider items such as ladders, tank supports, guards on rotating electrical equipment, wiring problems, etc.)

Is there an emergency response plan? ☒ Yes ☐ No

SANITARY SURVEY FORM - MISCELLANEOUS

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SYSTEM NAME Hopi Cultural Center

MONITORING AND RECORDKEEPING EVALUATION

Yes No Unk N/A

Bacti Sample Site Plan submitted? ☒ ☐ ☐ ☐

Where are bacti samples collected? Per plan.

Familiar with repeat sampling? ☒ ☐ ☐ ☐

Bacti records kept appropriately? (5 years) ☒ ☐ ☐ ☐

Where are Pb/Cu samples collected? Per plan.

Where are EP samples collected? Per plan.

Does the system have a current Monitoring Schedule? ☒ ☐ ☐ ☐

Where are DBP samples collected? Per plan.

D/DBP Monitoring plan? ☒ ☐ ☐ ☐

Are TOC Samples Collected? ☐ ☐ ☐ ☒

Chemical monitoring records maintained? (10 years) ☒ ☐ ☐ ☐

Other Records

Disinfection Profile (if required)? ☐ ☐ ☐ ☒

Sanitary surveys? ☒ ☐ ☐ ☐

IFE (SW only)? ☐ ☐ ☐ ☒

Other? _____ ☐ ☐ ☒ ☐

Comments: SGEC did not receive a copy of the monitoring plan. In the flow-to diagram, the entry point was positioned immediately post treatment as SGEC believes this is EPA Region 9's preference. SGEC believes collection of entry point samples post storage would more reliably ensure full mixing of treated and bypassed water (assuming any water is bypassed).

MANAGEMENT

Administrative Board – Name and description Hopi Cultural Center is a Tribal Enterprise with a 5-member governing board. Phillip Onsaie supervises the operators who take care of the PWS. The business is managed by a contractor that is hired by the board (The Hopi Tribal Enterprise Board).

Training provided – Describe Various trainings are provided by ITCA, RCAC, IHS and EPA.

Yes No Unk N/A

By-laws or articles of incorporation? ☒ ☐ ☐ ☐

Year of enactment: Unknown

Are copies available? ☒ ☐ ☐ ☐

Budget:

Exists? ☒ ☐ ☐ ☐

Adequate? ☐ ☐ ☒ ☐

Tribally subsidized? ☒ ☐ ☐ ☐

Are personnel adequately trained? ☒ ☐ ☐ ☐

Training provided? ☒ ☐ ☐ ☐

Describe: See above.

Training providers?: See above.

Are operators properly certified? ☒ ☐ ☐ ☐

Are there sufficient personnel? ☒ ☐ ☐ ☐

Are abandoned wells present? ☐ ☒ ☐ ☐

Do abandoned wells appear to be properly abandoned? ☐ ☐ ☐ ☒

Is operator aware of procedures regarding well abandonment? ☒ ☐ ☐ ☐

Is there an O&M manual? ☐ ☒ ☐ ☐

Is it current? ☐ ☐ ☐ ☒

Is a copy on-site? ☐ ☐ ☐ ☒

O&M log maintained? ☒ ☐ ☐ ☐

Comments: The O & M manual that was under development at the last sanitary survey did not get completed. There is supposed to be a manual with the new treatment plant when it goes online.

SANITARY SURVEY FORM - DIAGRAMS

PWSID: 0400260

Date of survey: 3/14 & 19/2018

SYSTEM NAME: Hopi Cultural Center

Google aerial photo



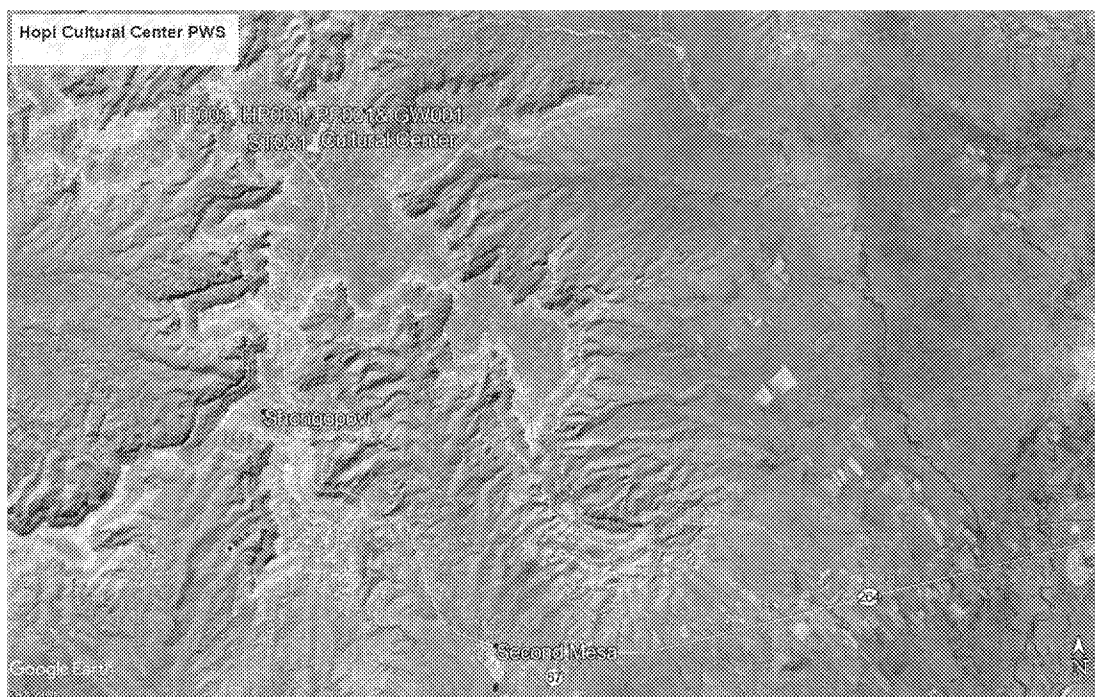
SANITARY SURVEY FORM - DIAGRAMS

PWSID: 0400260

Date of survey: 3/14 & 19/2018

SYSTEM NAME: Hopi Cultural Center

Google aerial photos



SANITARY SURVEY FORM - DIAGRAMS

PWSID: 0400260

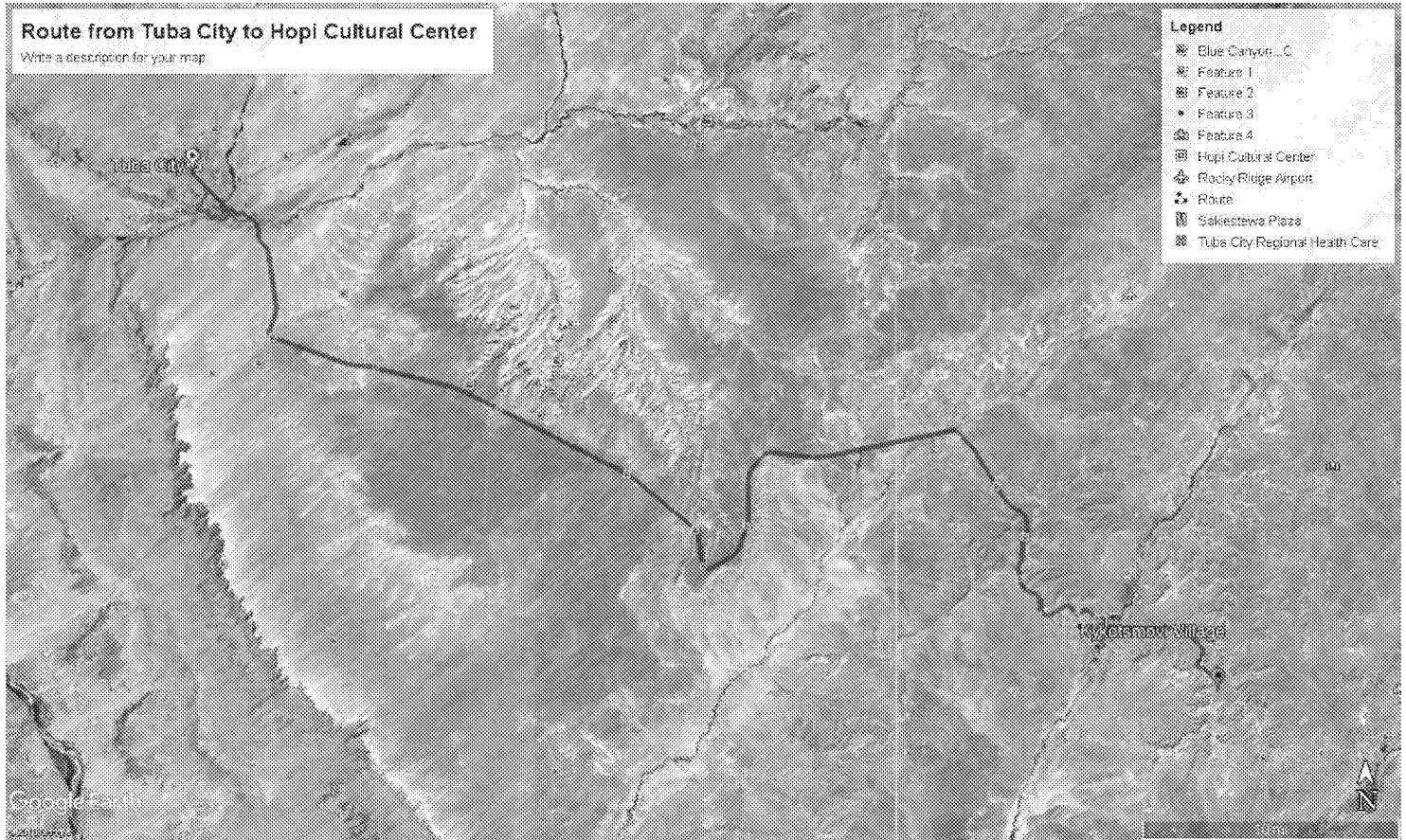
Date of survey: 3/14 & 19/2018

SYSTEM NAME: Hopi Cultural Center

Map to site

Route from Tuba City to Hopi Cultural Center

Write a description for your map.



Time	Distance	Instruction
9:00 AM	0.0	1 Depart US-160 on US-160 [Navajo Trail] (West) for 54 yds
9:00 AM	0.1	Turn LEFT (South-East) onto SR-264 [Main St] for 57.5 mi
9:58 AM	57.5	Turn LEFT (North-East) onto Local road(s) for 21 yds
9:58 AM	57.5	Turn RIGHT (South-East) onto Local road(s) for 0.2 mi
9:58 AM	57.7	Turn LEFT (North) onto Local road(s) for 65 yds
9:59 AM	57.7	2 Arrive at Cultural Center

It may be desirable to have a kick-off meeting with the facilities management staff at the Hopi Tribal administration offices in Kykotsmovi. To get to the offices, turn right at the Kykotsmovi sign (if coming from Tuba City) on HWY 264, go through 3 4-way stop signs and the Tribal offices will be on the right-hand side of the road. Facilities Management is located on the second floor of the 2-story building.